



AB 868

Fuel Delivery Temperature Study

Staff Workshop
California Energy Commission

Sacramento, CA
June 5, 2008

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Fuels and Transportation Division
California Energy Commission



Taking notes is optional since an electronic copy of this presentation will be posted on our web site, along with a transcript & WebEx recording





Presentation Topics

- Goal of workshop
- Overview
- Primary study objectives
- Temperature survey summary & results
- Temperature compensation benefits
- Temperature compensation costs
- Cost-benefit calculations – example
- Potential impact on revenue for retail establishment owners
- Phase-in schedule cost-benefit implications
- Next steps



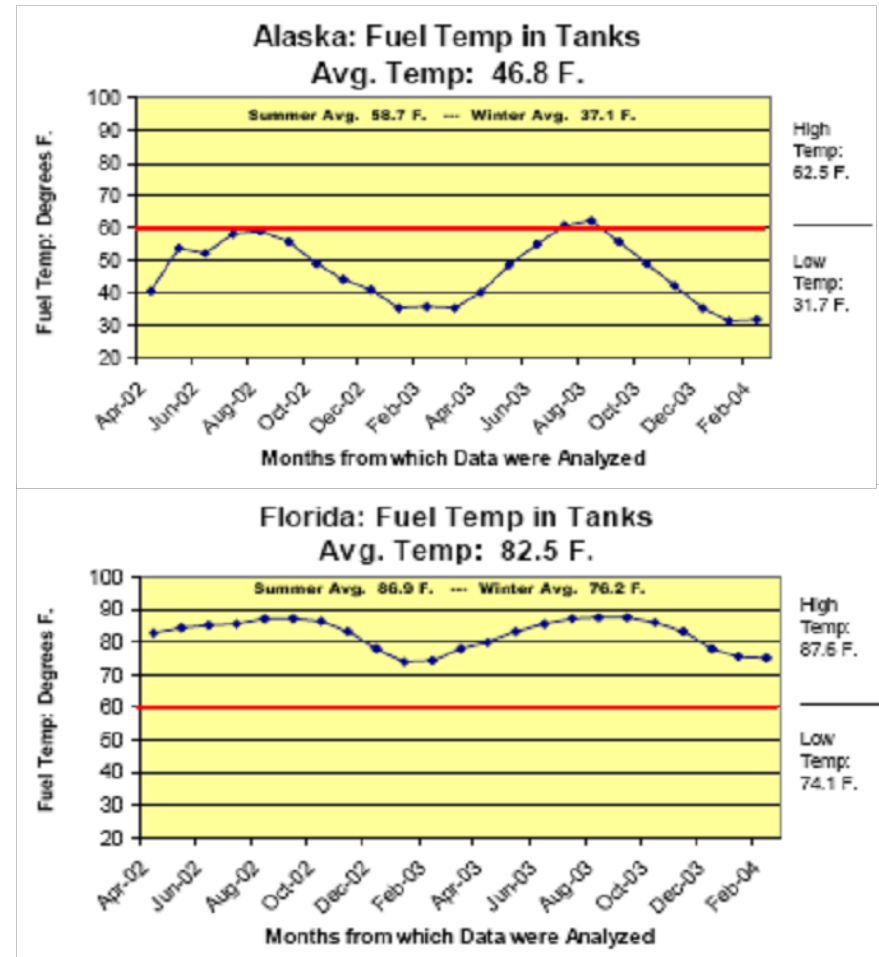
Goal of Today's Workshop

- Goal is to identify information resources used and analytical methodology of the cost-benefit study
 - Consumer impacts methodology and example
 - Business impacts calculation
 - Agency impacts assessment
 - Identification of additional informational resources
- We will strive for consensus on as much of the methodology as feasible
- But recognize that disagreements may exist on a number of issues that will not be resolved today



Overview - Background

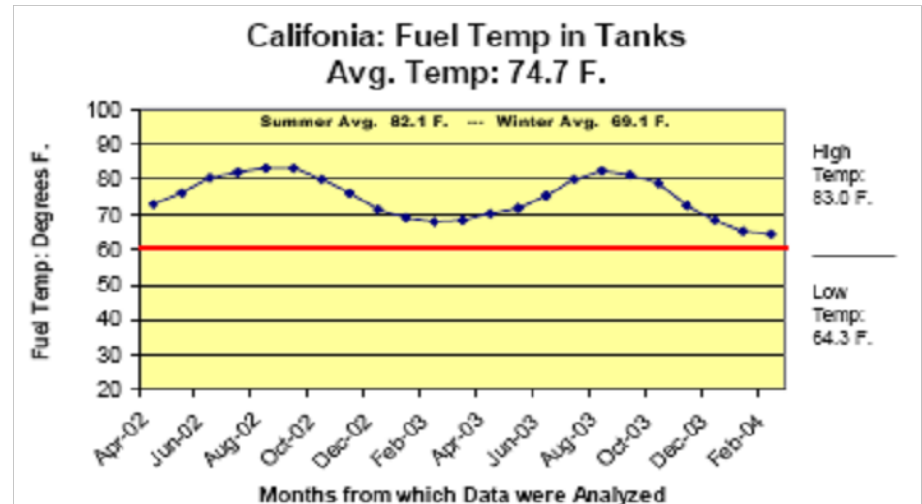
- Liquids expand and contract in response to changes in temperature
- Petroleum industry uses a reference temperature of 60°F
- Temperature of gasoline and diesel fuel delivered to retail establishments varies by geographic location and season according to an NIST study
- There are “cold” & “hot” states
- Temperature of retail fuel does not vary significantly prior to delivery to end consumer





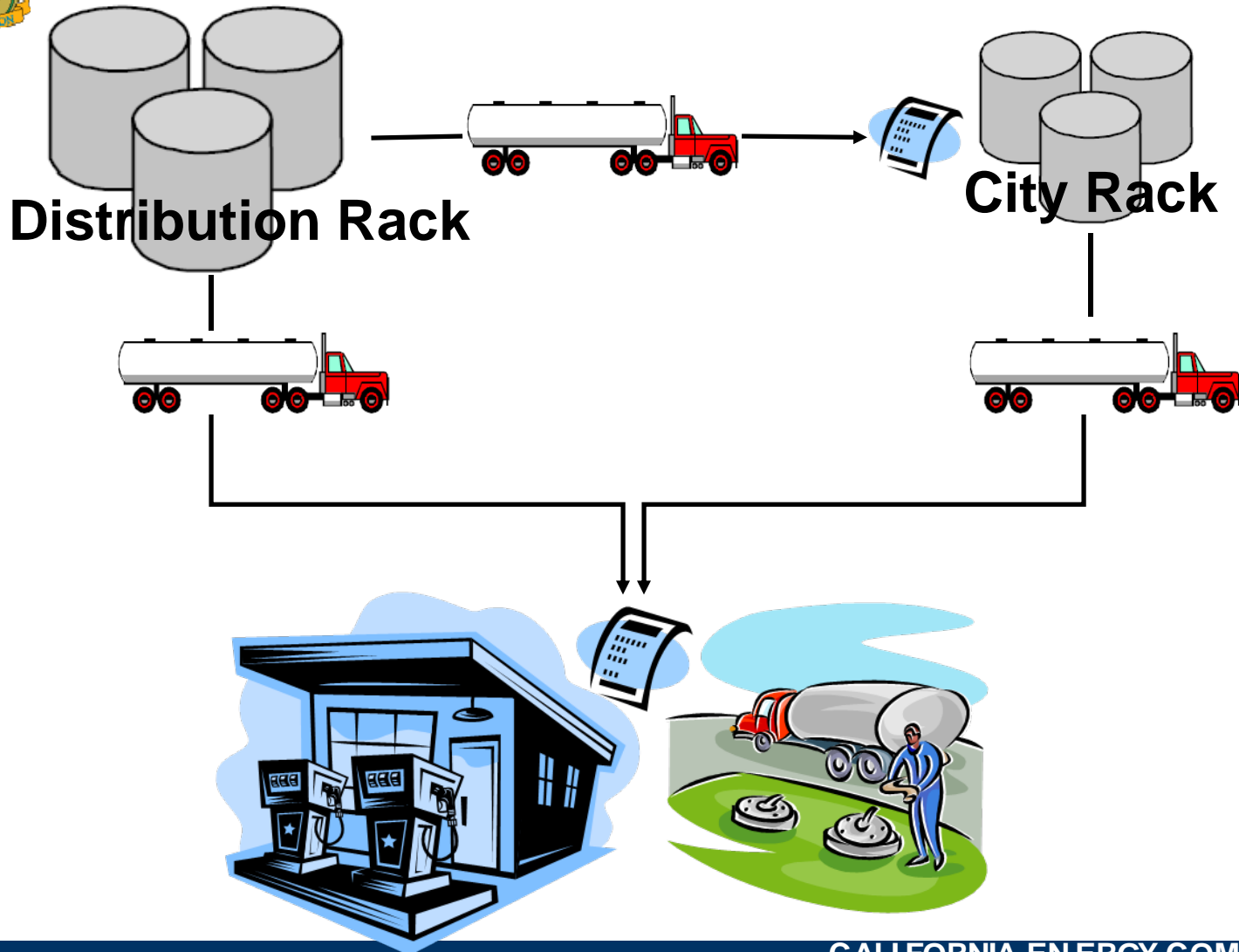
Overview - Background

- California appears to be one of the “hot” fuel states
- Gasoline that is 15°F warmer than the standard of 60°F is estimated to expand, resulting in 1 percent less energy
- If Automatic Temperature Compensation (ATC) was required in California
 - Benefits would include more fuel for consumers
 - Costs would include expense of ATC equipment and installation labor





Fuel Distribution Overview



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Fuel Distribution - Glossary

- Petroleum Gallon = 231 cubic inches of fuel at 60°F
 - Also referred to as a *net* gallon
- U.S. Gallon = 231 cubic inches of fuel at *any* temperature
 - Also referred to as a *gross* gallon

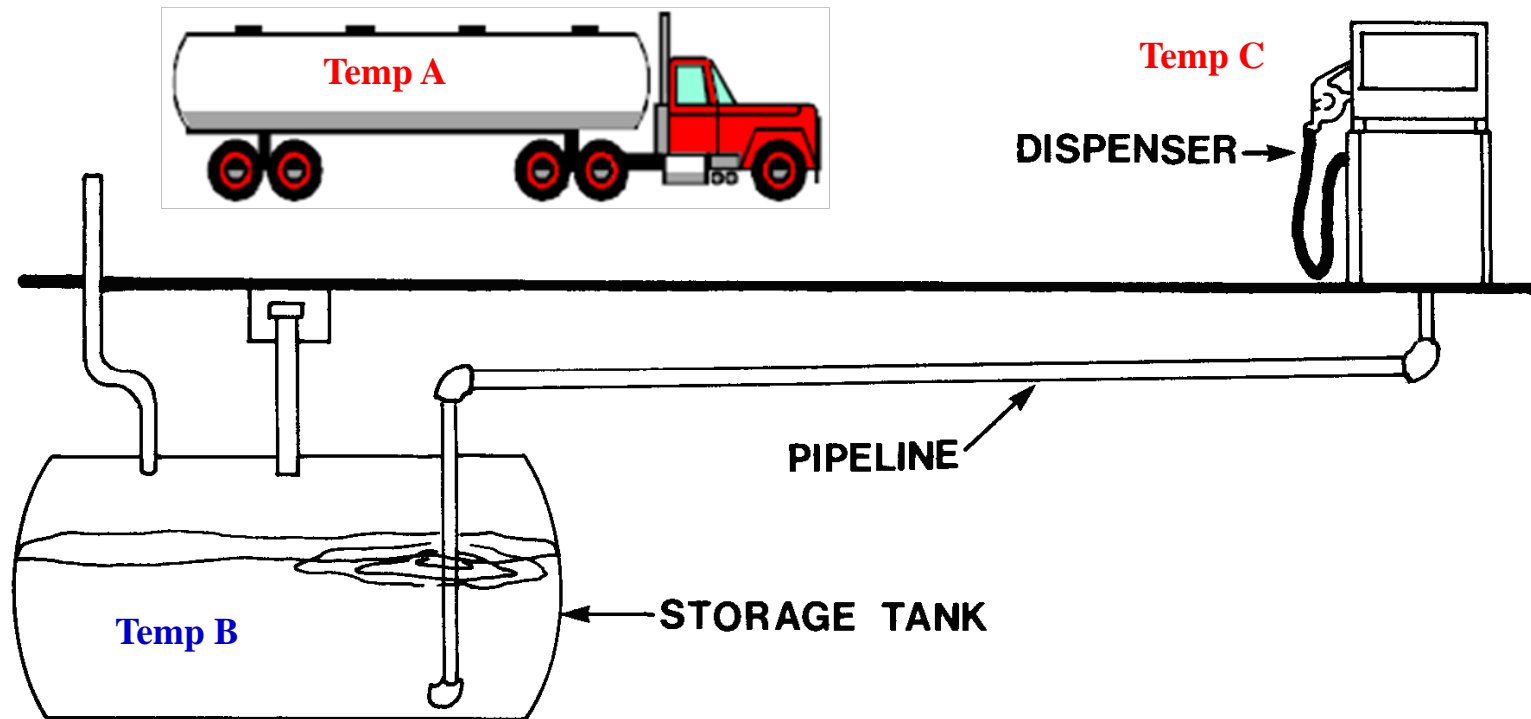


Distribution – Temperature Change

- Temperature of fuel may change from the point of loading at the distribution terminal to the point of discharge into the consumer's fuel tank
- Do not currently have California data on temperature of:
 - Fuel loaded at the distribution terminal
 - Fuel delivered to the retail establishment
- Information from outside of California may suggest that the temperature of the fuel delivered to the retail outlet could decrease by the time it is dispensed to the retail consumer – referred to as “shrinkage” or decline of inventory



Distribution – Retail Shrinkage



Fuel delivered to a retail establishment during the warmer months could decrease in temperature between the time of delivery (Temp A) and the dispensing of the fuel to the consumer (Temp C) – but how much?



Distribution – Temperature Change

- Although no fuel temperature data is being collected from distribution terminals or tanker truck deliveries, it should be noted that the installation of ATC retrofit kits at retail establishments will not alter any *physical aspect* of fuel expansion or contraction upstream of the retail dispenser



Overview - AB 868 Legislation

- Bill directs the California Energy Commission (Energy Commission) to a conduct cost benefit analysis for installation of automatic temperature compensation (ATC) devices at retail establishments or establishing a new reference temperature
- Energy Commission is working in partnership with DMS and CA Air Resources Board (CARB) representatives
- Advisory group formed of interested stakeholders that have expertise in various subject matter associated with temperature compensation
- Study must be completed by the end of 2008
- Will include recommendations to the Legislature



Overview – Future Workshops - 2008

- Will conduct two additional public meetings, held at the Energy Commission in Sacramento
- **September 17th** – Committee workshop
 - Discuss findings & preliminary recommendations from draft staff report
 - Draft report will be released no later than September 3rd
 - Receive stakeholder comments
- **October 27th** – Committee workshop
 - Receive stakeholder comment on Draft Committee Report
- December – Energy Commission adoption of Final Report



Energy Commission Website

- The Energy Commission has created a website that will be used to provide information resources and status of the Fuel Delivery Temperature Study
- Link is as follows:

**[http://www.energy.ca.gov/transportation/
fuel_delivery_temperature_study/index.html](http://www.energy.ca.gov/transportation/fuel_delivery_temperature_study/index.html)**

- Interested parties may sign up on the list server or provide email address to staff in order to receive notices for future workshops & study documents



Overview – Workshop & Study Comments

- The Energy Commission encourages all interested parties to provide comments and feedback to technical staff throughout the course of this study
- Comments may be conveyed through various means:
 - Verbal
 - Written
 - Electronic
 - Documents
 - Email correspondence



Overview – Additional Discussion

Welcome to the **California Energy Commission**

WWW.ENERGY.CA.GOV / TRANSPORTATION / FUEL DELIVERY TEMPERATURE STUDY

Fuel Delivery Temperature Study (Docket # 07-HFS-01)

Commission Homepage
Transportation Division Main Page

Proceeding Information

Notices and Announcements
(Updated: 02/15/08)

Documents and Reports
(Updated: 2/29/08)

Docket Log (07-HFS-1)
coming soon

Related Information

National Conference on
Weights and Measures

Assembly Bill 868

AB 868 Advisory Group
Members
(PDF file)

List Server

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Assembly Bill 868 (Davis, Chapter 398, Statutes of 2007) requires the California Energy Commission to prepare a cost-benefit analysis and to make recommendations relative to the implementation of Automatic Temperature Correction devices at retail service stations. This report is due to the Legislature no later than December 31, 2008.

Like many other liquids, fuel experiences expansion and contraction with temperature change. For gasoline, there is one percent less fuel for each fifteen degree temperature increase. So the warmer the fuel, the less energy and fewer miles to the gallon a vehicle will receive.

This report will be prepared in partnership with the Department of Food and Agriculture and the California Air Resources Board. The Division of Measurement Standards, within the Department of Food and Agriculture is currently conducting a fuel temperature survey to complement site surveys planned by the Energy Commission.

For more information on this program and proceeding, please contact:

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News Media Please Contact:

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ANNOUNCEMENTS

March 4, 2008
Staff Workshop on Assembly
Bill 868 Fuel Delivery
Temperature Study

Also, please visit our
[Energy Calendar](#)

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AB 868 – Primary Study Objectives

- Determine if temperature compensation makes economic sense for retail application in California
- Legislation requires that we examine two different approaches to temperature compensation
 - New reference temperature
 - ATC equipment at retail
- Each primary option will require the quantification and comparison of benefits to costs
- Primary focus: Will the costs outweigh the benefits?



AB 868 – Proposed Study Structure

- Cost benefit analysis will examine the following **options**:
 - Retain the current temperature reference of 60°F – do nothing
 - **Establish a different statewide reference standard – Hawaii example**
 - Establish different regional reference standards throughout the state
 - **Installation of ATC retrofit kits at all retail establishments**
 - Mandatory or voluntary
 - Installation of ATC retrofit kits at retail establishments *on a regional basis*



Study Structure – Reference Temperature Adjustment Option

- The Energy Commission will examine the option of using a different temperature reference standard for the State for both gasoline and diesel fuel
- Hawaii adopted this approach in 1974
 - Act 239
 - Revised statute 486-50
- Gallon of retail gasoline dispensed in Hawaii contains 233.8 cubic inches, rather than 231 cubic inches
 - Adjusted to reflect an average temperature of 80°F
- Gallon of retail diesel fuel dispensed in Hawaii contains 233.3 cubic inches





Study Structure – ATC Retrofit

- The Energy Commission will examine the option of installing automatic temperature compensation devices at all retail establishments in the State – mandated & voluntary
- Canada adopted this approach on a voluntary basis in 1990
 - Approximately 90 to 95 percent of the fuel dispensed to the public is from fuel dispensers that have ATC devices
 - Retailers determined that the retrofit work was economical
 - ATC devices monitor the temperature of the fuel being dispensed and adjust the delivered volume to result in a liter of fuel that contains the same energy content as a liter at 15°C



Study Structure – California

- Statewide analysis conducted for 58 individual counties
- Monthly analysis - April of 2007 through March of 2008
- Primary data requirements
 - Dispensed fuel temperature
 - Ambient temperatures
 - Fuel volumes sold
 - Retail prices by fuel type
 - Retail establishment information
 - ATC retrofit costs
 - Installation & inspection labor estimates



Study Structure – Discussion



Temperature Study

- The California Division of Measurement Standards (DMS) has been working with county sealers to obtain fuel temperature data at retail establishments since April of 2007

California Fuel Temperature Survey

- Temperature survey work continued through March of 2008
<http://www.cdfa.ca.gov/dms/fueltempsurvey/FuelTempReports.pdf>
- DMS has provided Energy Commission staff with the data set
- Majority of counties have temperature data
 - 82 percent of taxable gasoline sales represented
 - 75 percent of taxable diesel fuel sales represented



Temperature Study - Overview

- County sealers sampled temperatures during their routine station inspections
 - Air temperature
 - Fuel in storage tank
 - Fuel dispensed from the nozzle – prover temperature
- Temperatures data was only collected for up to 20 percent of the visits
- No temperature data for mid-grade gasoline
- Gasoline is assumed to contain approximately 6 percent ethanol by volume



Temperature Study - Summary

- Gasoline results – regular grade
 - 72.3 degrees F - statewide weighted average
 - August was highest month – 82.3 degrees F
 - January was lowest month – 60.7 degrees F
 - Highest county arithmetic average
 - 91.0 degrees F during August in Yuba county
 - Highest recorded temperature
 - 102.0 degrees F during July in Tulare county
 - Lowest county arithmetic average
 - 43 degrees F during January in Amador county
 - Lowest recorded temperature
 - 43.0 degrees F during January in Amador county

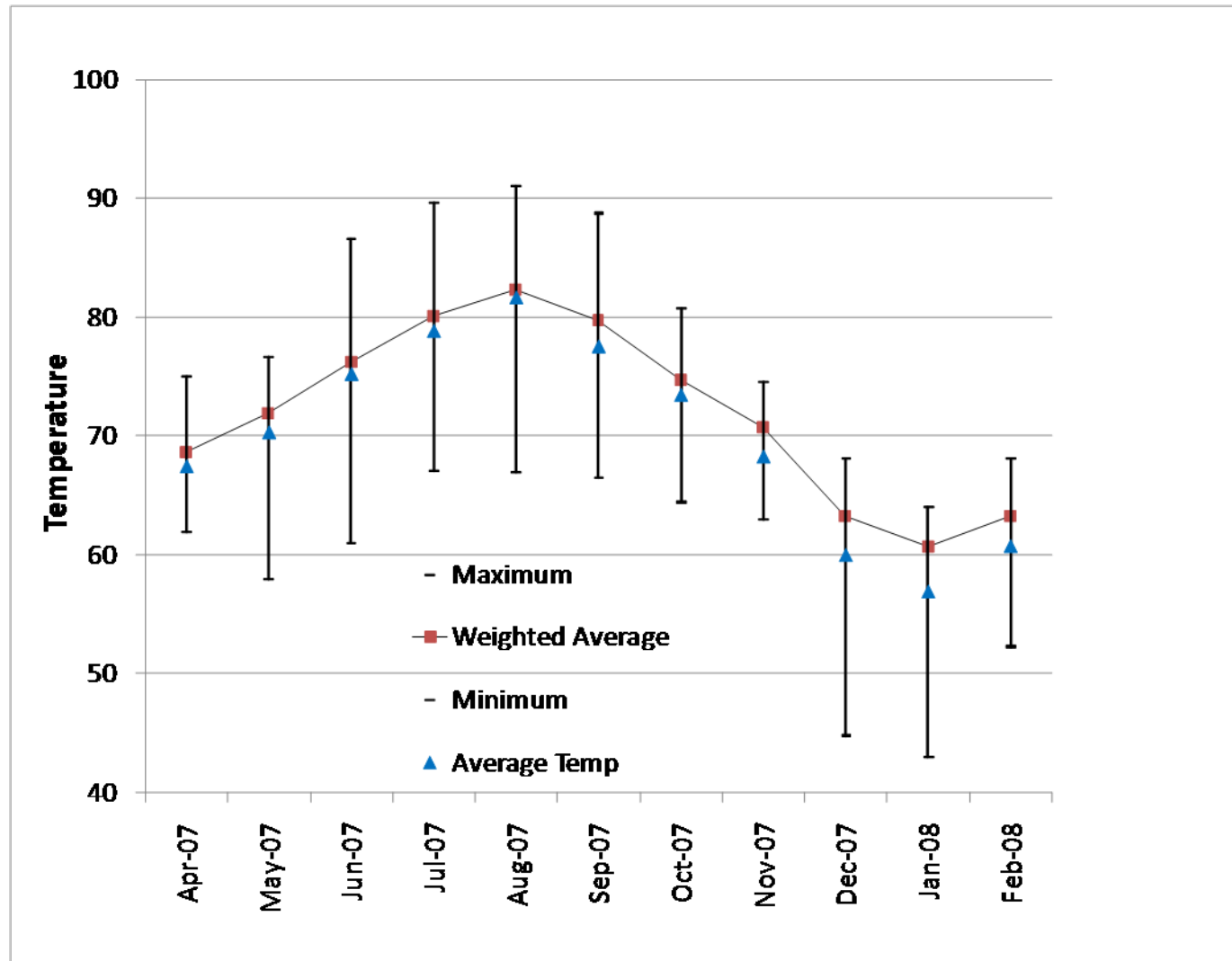


Temperature Study - Summary

- Diesel fuel results
 - 74.0 degrees F - statewide weighted average
 - August was highest month – 84.2 degrees F
 - December was lowest month – 60.6 degrees F
 - Highest county arithmetic average
 - 95.0 degrees F during August in Tulare county
 - Highest recorded temperature
 - 106.7 degrees F during July in Riverside county
 - Lowest county arithmetic average
 - 51.8 degrees F during January in Butte county
 - Lowest recorded temperature
 - 50.6 degrees F during January in Butte county

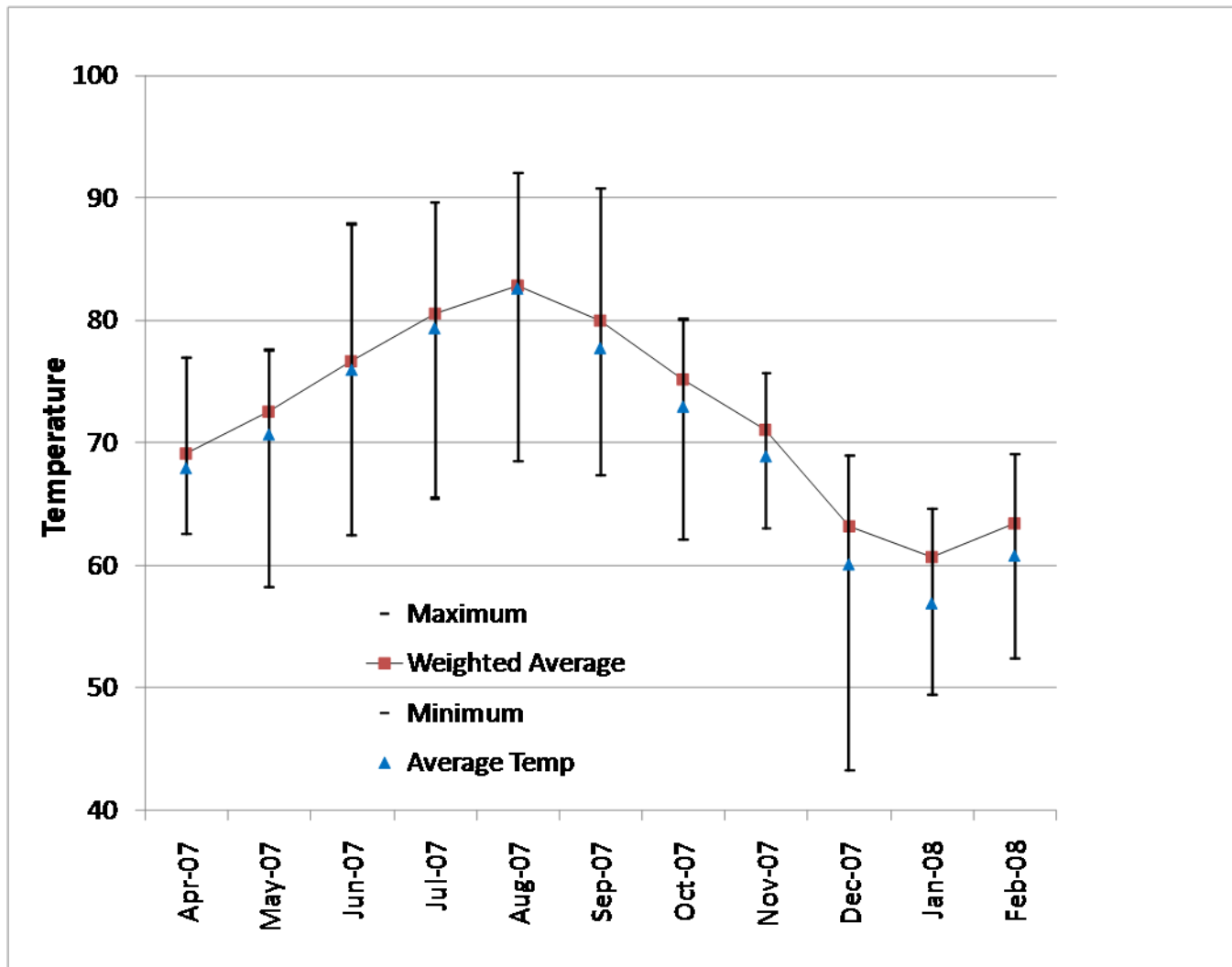


Regular Gasoline Statewide Temperatures





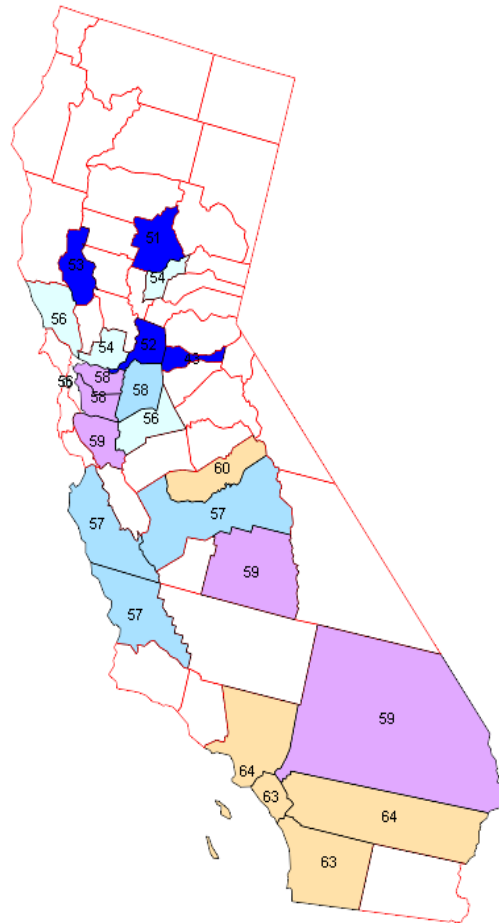
Prem. Gasoline Statewide Temperatures





Gasoline Temperature Map - January

Prover Temperature ■ 43 - 53 ■ 54 - 56 ■ 57 - 58 ■ 58 - 59 ■ 60 - 64

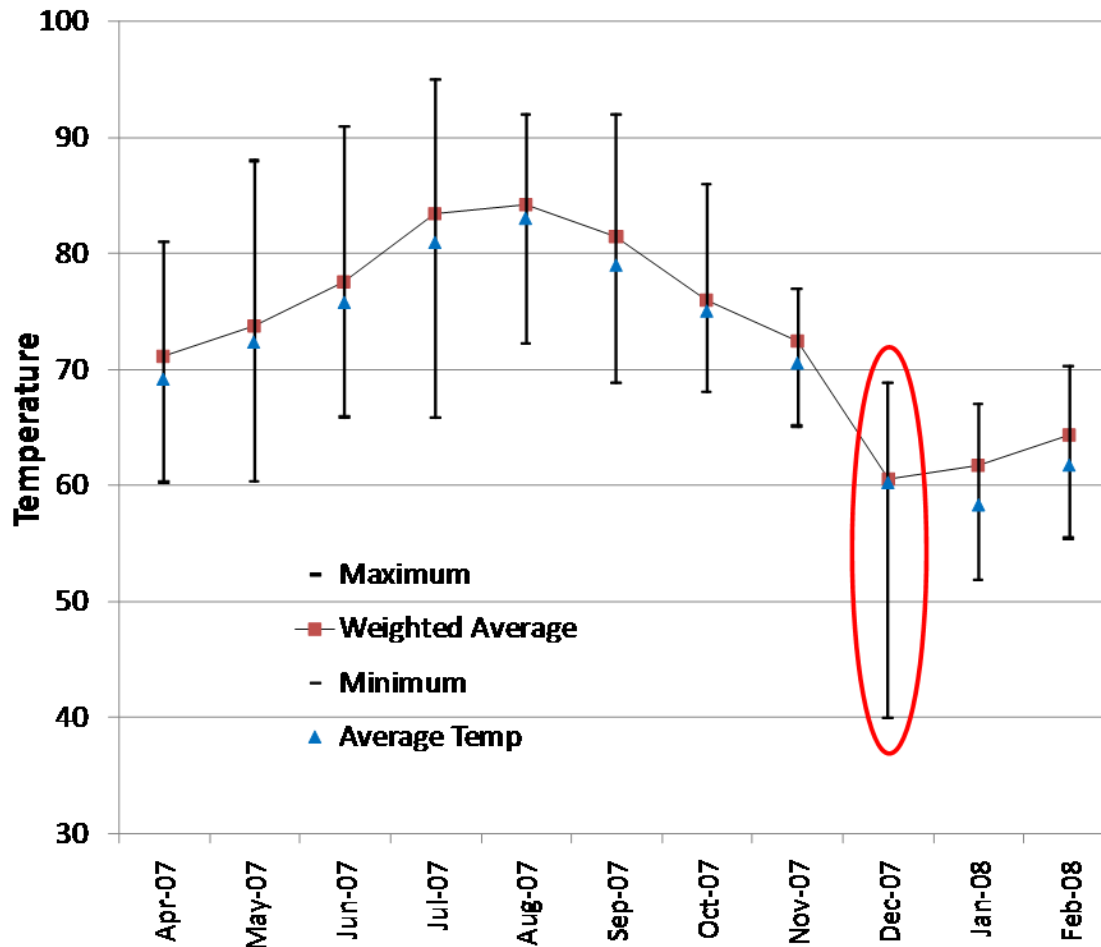




A map of California divided into 89 numbered regions, color-coded by political affiliation. The colors are: Orange (Republican), Yellow (Republican), Pink (Republican), Light Blue (Democrat), Dark Blue (Democrat), and Light Green (Democrat). The regions are numbered 64, 81, 91, 89, 85, 87, 84, 79, 86, 89, 78, 89, 86, 80, 81, 79, 78, 74, 79, 77, 79, 72, 76, 67, 84, 80, 81, 89, 86, 81, 80, 81.

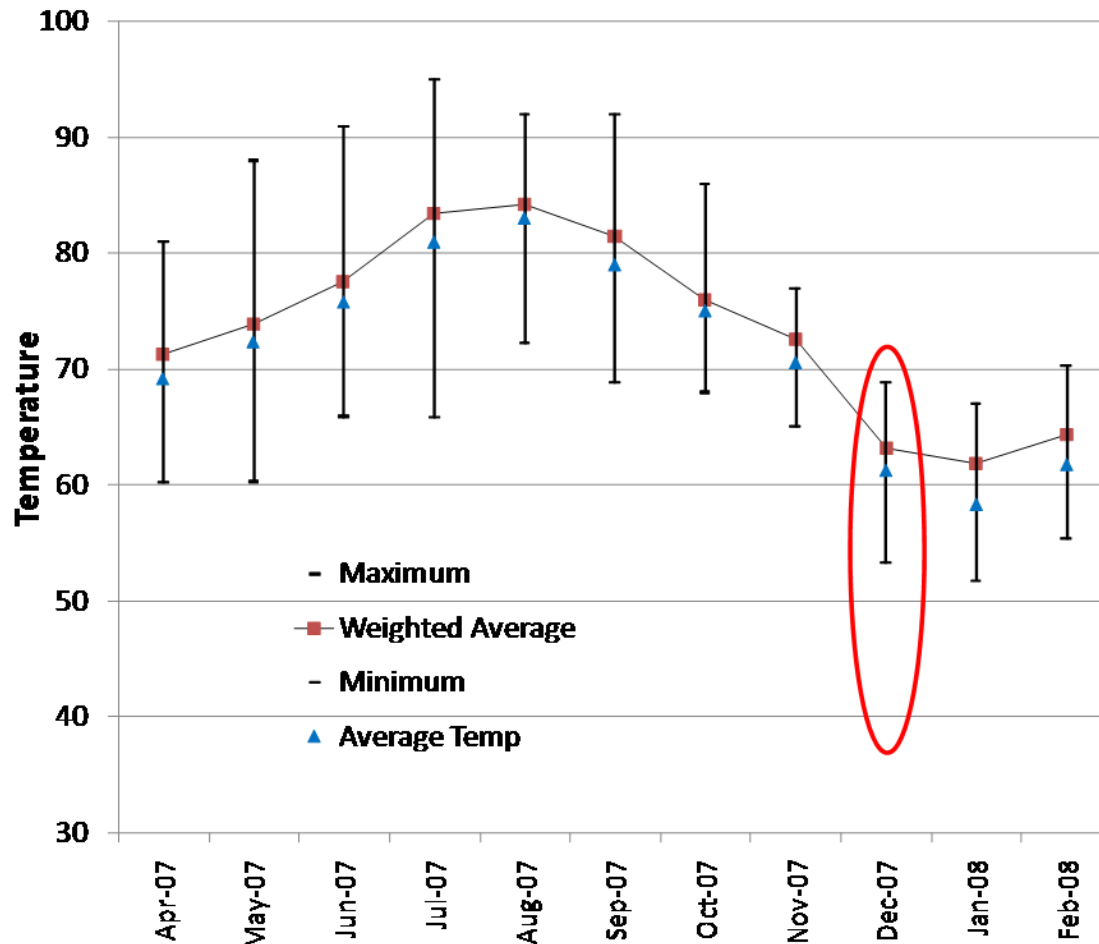


Diesel Fuel Statewide Temperatures





Diesel Fuel Temperatures - Revised



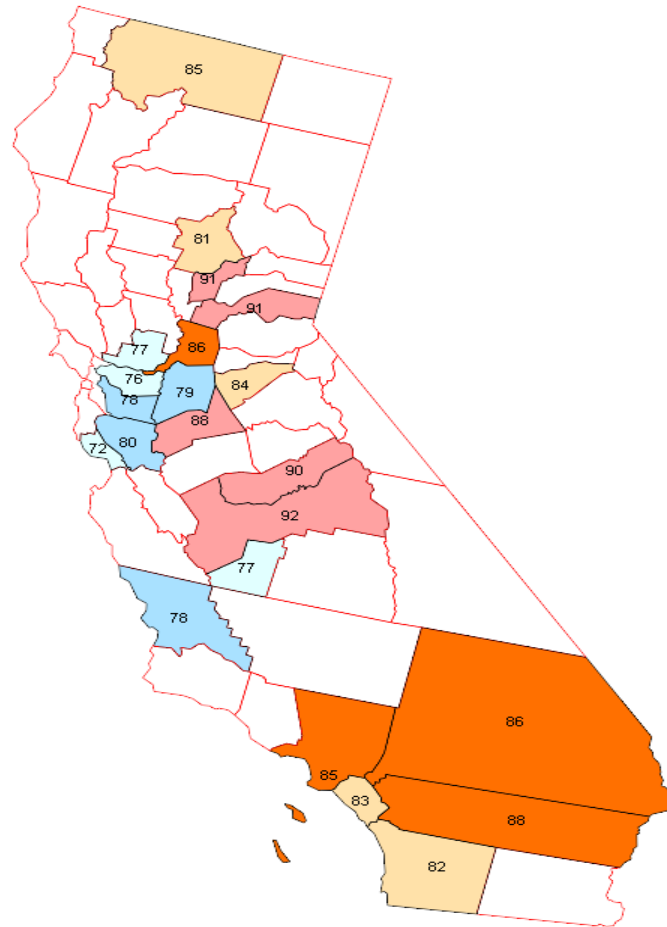




Diesel Temperature Map - August

Prover Temperature

Color	Temperature Range
Light Blue	72 - 77
Blue	78 - 80
Light Orange	81 - 85
Dark Orange	85 - 88
Red	88 - 92



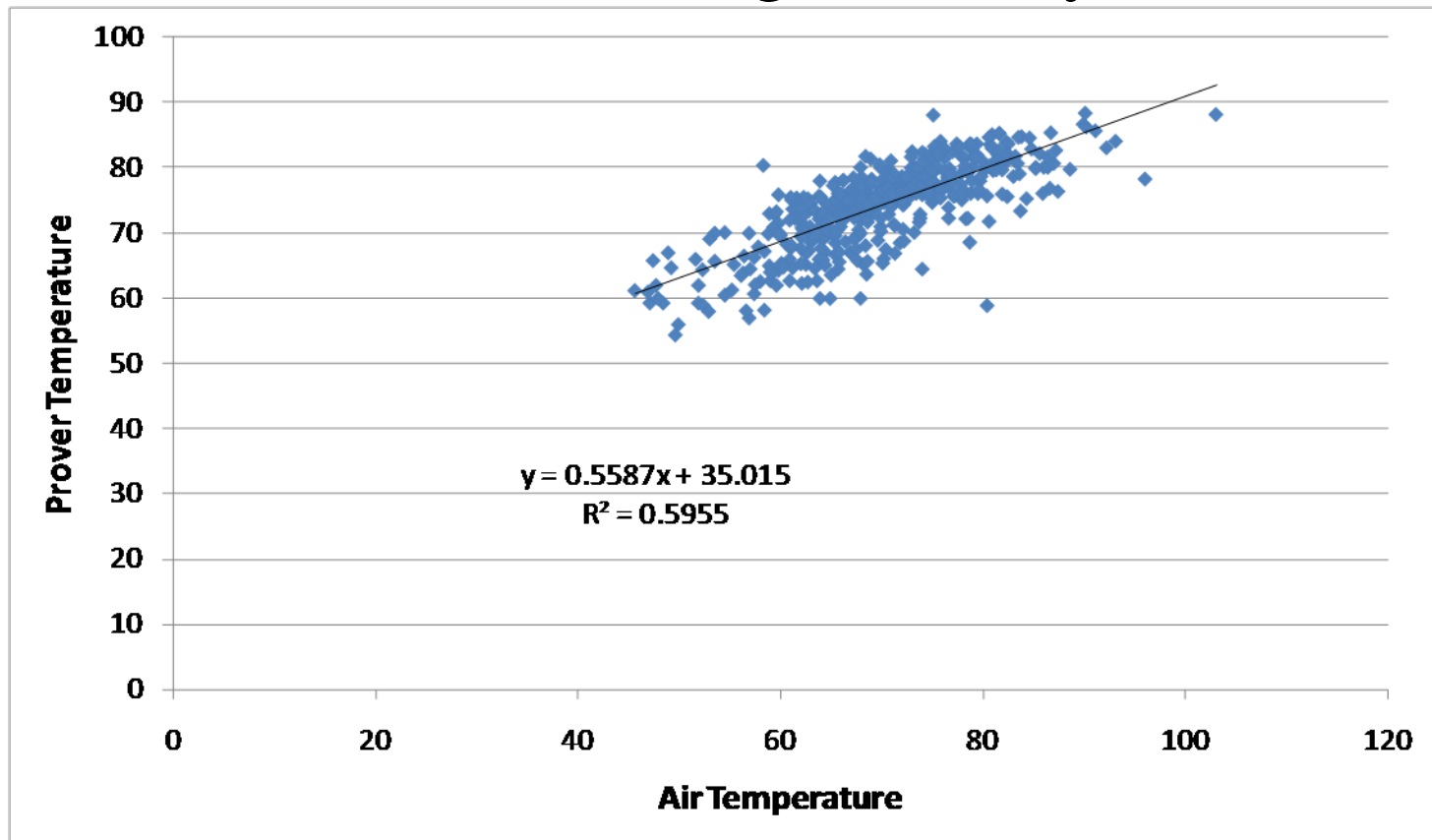


Fuel Temperatures – Missing Data

- 31 California counties either have no temperature data available or intermittent reporting
 - But these counties account for only 18 percent of total gasoline & 25 percent of diesel fuel consumption
- CEC staff plan to develop estimates for fuel temperatures
 - Based on a mathematical relationship between ambient air temperature and fuel prover temperatures
- Ambient temperature data source from the National Climate Data Center
- City temperatures will be weighted by population to develop monthly average temperatures by county



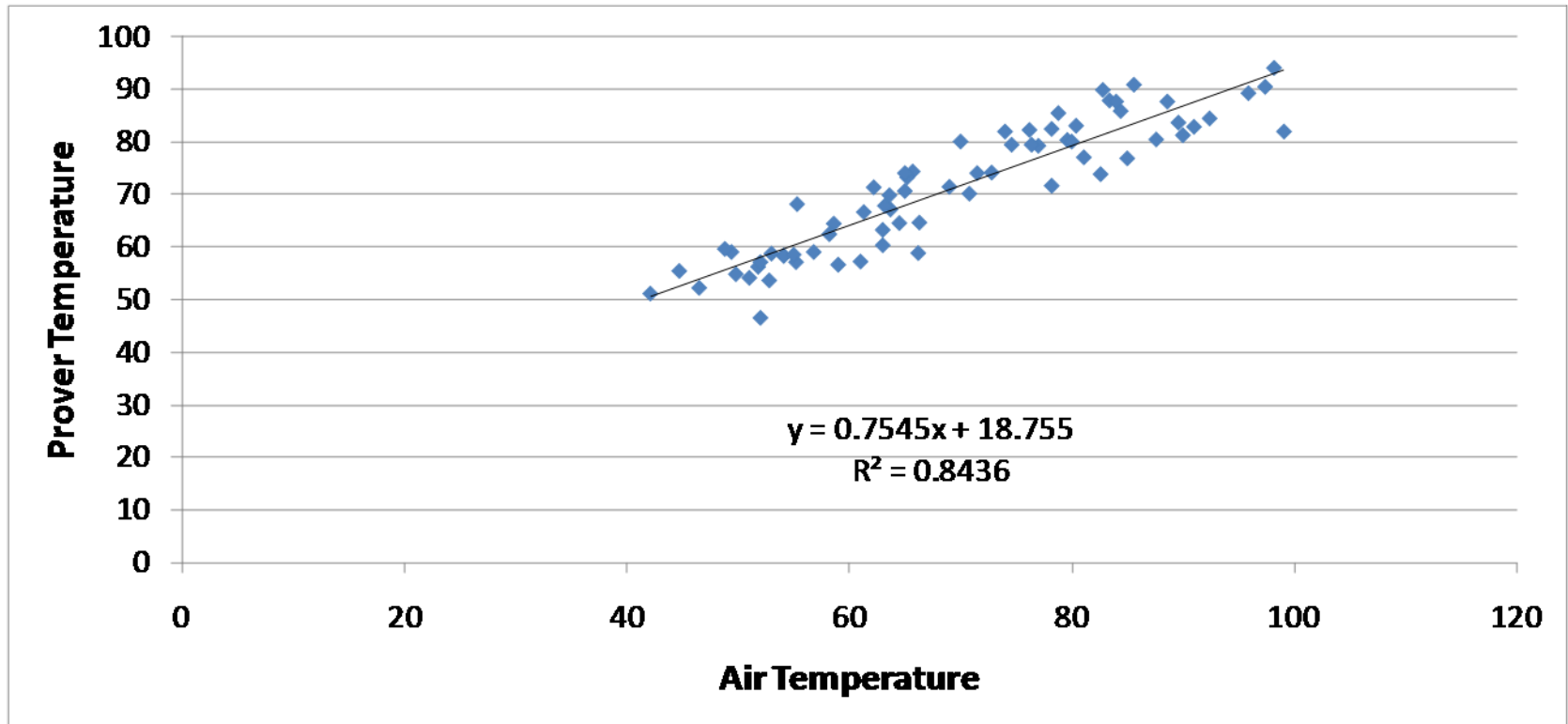
Air & Fuel Temperature Relationship San Diego County



Regular Grade Gasoline



Air & Fuel Temperature Relationship Fresno County



Regular Grade Gasoline



Fuel Temperatures – Missing Data

- No fuel temperature data available for mid-grade gasoline
- Most mid-grade gasoline is “created” by combining equal parts of premium and regular grades at the dispenser
- CEC staff will estimate mid-grade gasoline temperatures using the average of the premium and regular grade prover temperatures



TC Benefits – Methodology

- Retail consumer “benefits” will be calculated on a monthly basis as follows:

(fuel volume) x (retail fuel price) x (volume correction factor)

Fuel volume = taxable statewide gasoline sales from Board of Equalization (BOE) prorated by county (CalTrans)

Fuel price = retail price from the Oil Price Information Service

Vol. Correction Factor = function of temperature & density

- Fuel temperature from DMS survey
- Volume correction factor equation from ASTM



TC Benefits – Fuel Volumes

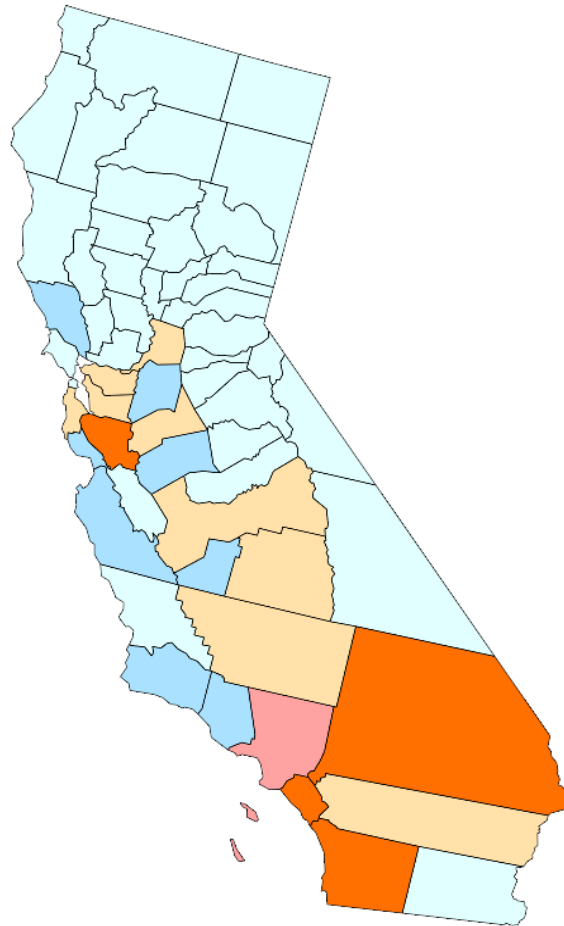
- California motorists use about 16 billion gallons of gasoline and 4 billion gallons of diesel fuel each year
- The California State Board of Equalization reports statewide taxable gasoline sales on a monthly basis
- The California Department of Transportation estimates county-specific demand for both gasoline and diesel fuel
- Energy Commission staff used both of these sources to estimate monthly demand for each county for the period April 2007 through March 2008
- Majority of fuel consumption is centered around Southern California , Central Valley and the San Francisco Bay Area



Gasoline Consumption Map

% of total consumption






Color	Range
Light Blue	less than 1%
Blue	1% to 2%
Orange	2% to 5%
Dark Orange	5% to 10%
Pink	greater than 10%

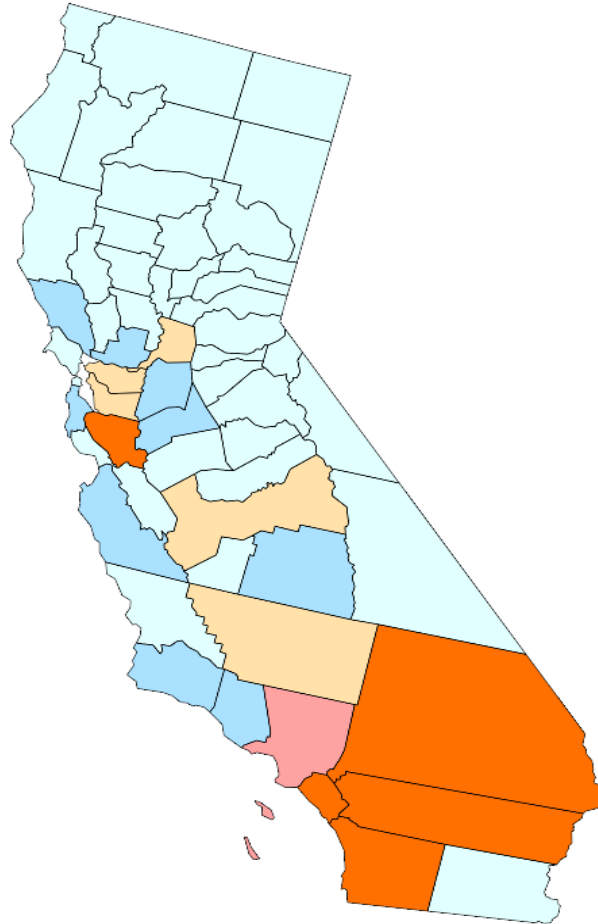




Diesel Fuel Consumption Map

% of total consumption

 less than 1%	 1% to 2%	 2% to 5%	 5% to 10%	 greater than 10%
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Fuel Volume – Missing Data

- California State Board of Equalization does not specify grade of gasoline for their totals taxable sales volumes
- CEC staff will estimate ratios of premium, mid and regular grade gasoline volumes by each county using information collected from our Annual Retail Outlet Survey process – referred to as the A15 Survey
- Based on preliminary analysis of the 2007 A15 Survey results, statewide consumption of gasoline by grade is estimated as follows:
 - 15.7 percent for premium (91 octane)
 - 10.1 percent for mid-grade (89 octane)
 - 74.3 percent for regular grade (87 octane)



TC Benefits – Fuel Prices

- The Energy Commission purchases retail gasoline and diesel fuel prices on a daily basis from the Oil Price Information Service (OPIS)
- Technical staff will use this data to calculate monthly average fuel prices by county
- All counties have monthly retail gasoline price representation
- Coverage for retail diesel fuel does not include all counties
- Estimates will need to be used for some counties based on proximity to other counties that have pricing data

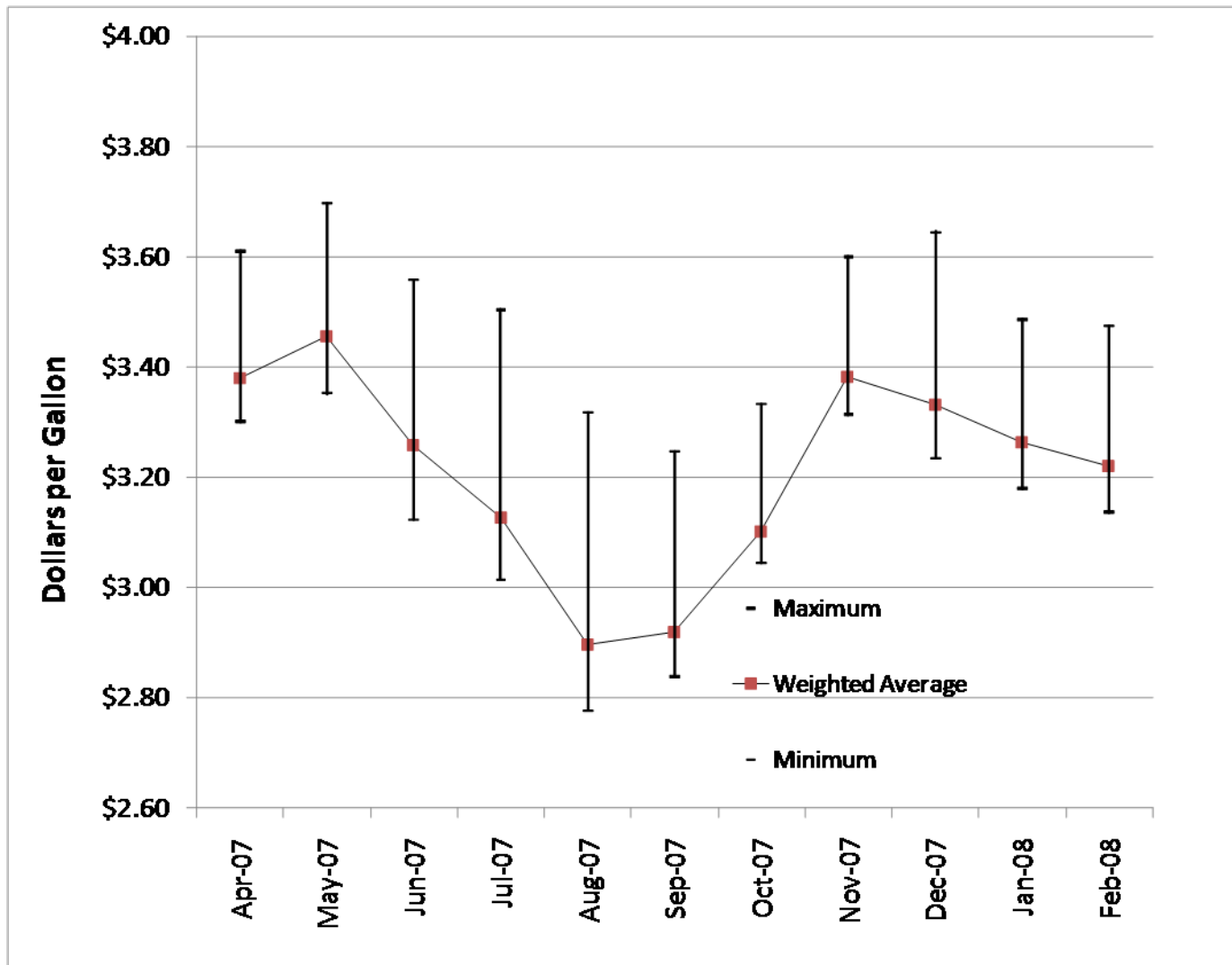


TC Benefits – Fuel Prices

- Gasoline retail prices averaged \$3.21 over the study period
 - April of 2007 through March of 2008
 - Highest county average price was \$3.76 in March of 2008
 - Sierra, San Mateo & San Francisco counties
 - Lowest county average price was \$2.78 in August of 2007
 - Placer & Sacramento counties
- Diesel retail prices averaged \$3.28 over the study period
 - April of 2007 through March of 2008
 - Highest county average price was \$4.18 in March of 2008
 - Humboldt & San Luis Obispo counties
 - Lowest county average price was \$2.84 in May of 2007
 - Madera & San Joaquin counties



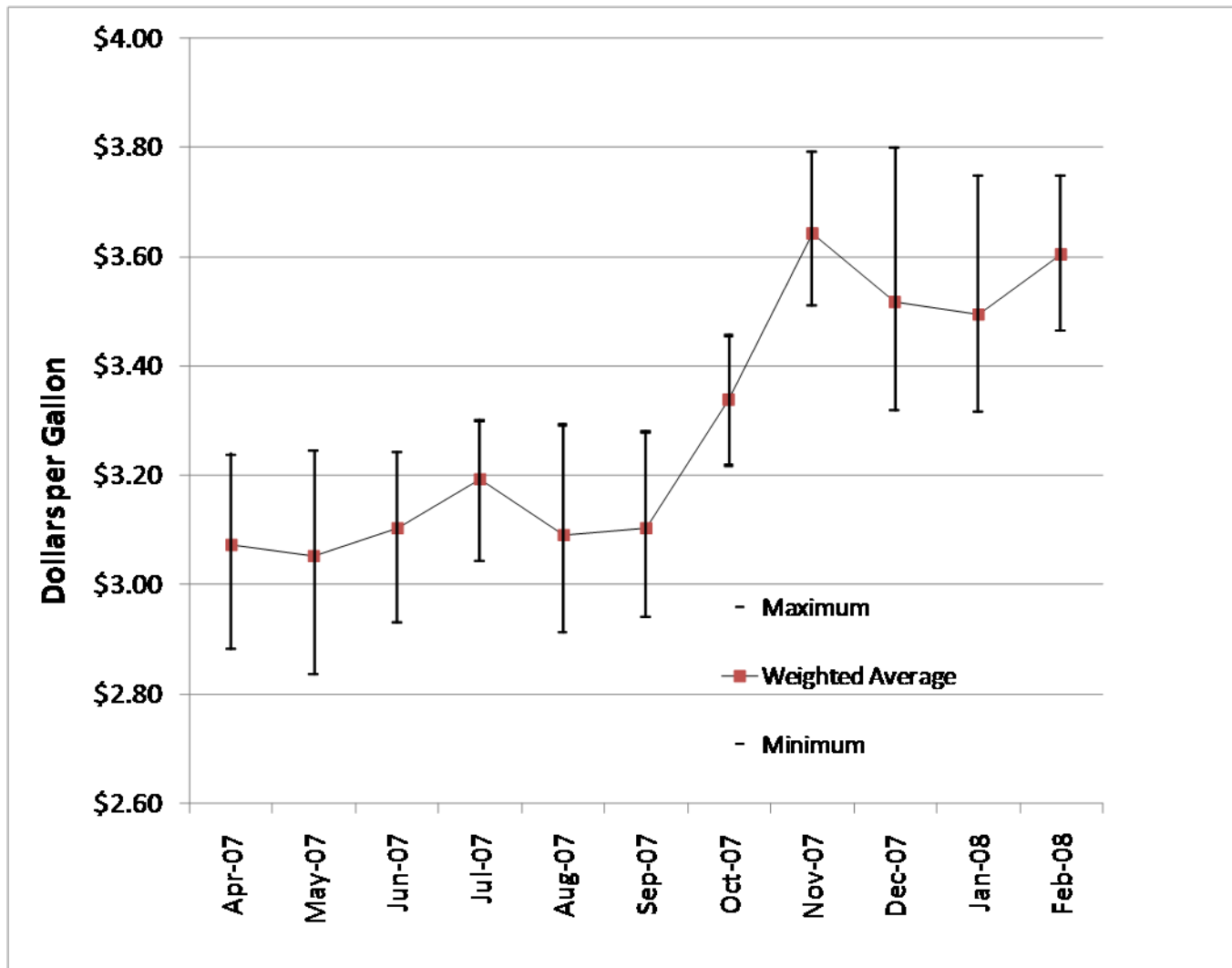
California Retail Gasoline Prices



CALIFORNIA ENERGY COMMISSION



California Retail Diesel Fuel Prices



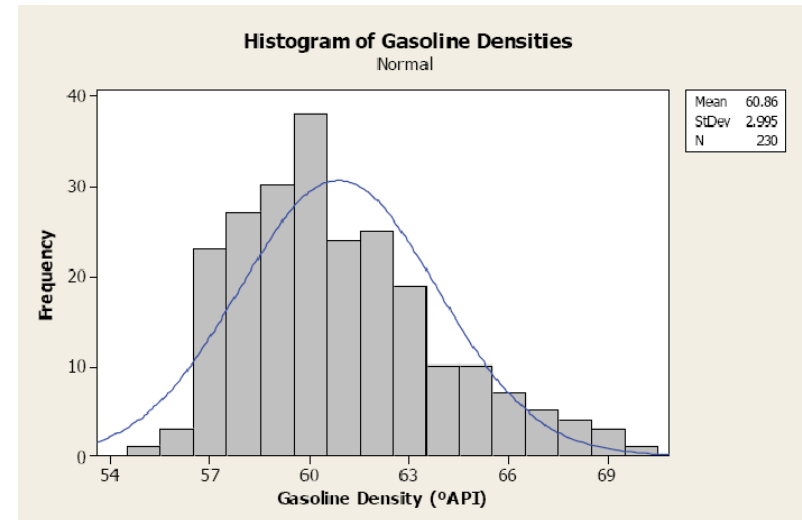
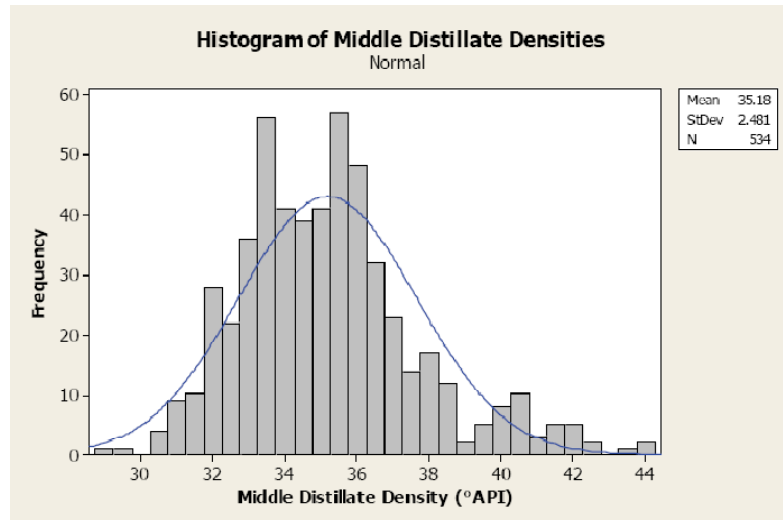


Fuel Prices – Missing Data

- Mid-grade and premium grade gasoline retail prices will be estimated using differentials from the EIA weekly retail gasoline survey information
- Mid-grade retail gasoline prices are approximately 10.1 cents per gallon greater than the regular grade prices over the study period
- Premium grade retail gasoline prices are approximately 21.0 cents per gallon greater than the regular grade prices over the study period
- Monthly average differentials were developed and applied to the individual county retail gasoline price



TC Benefits – Fuel Density

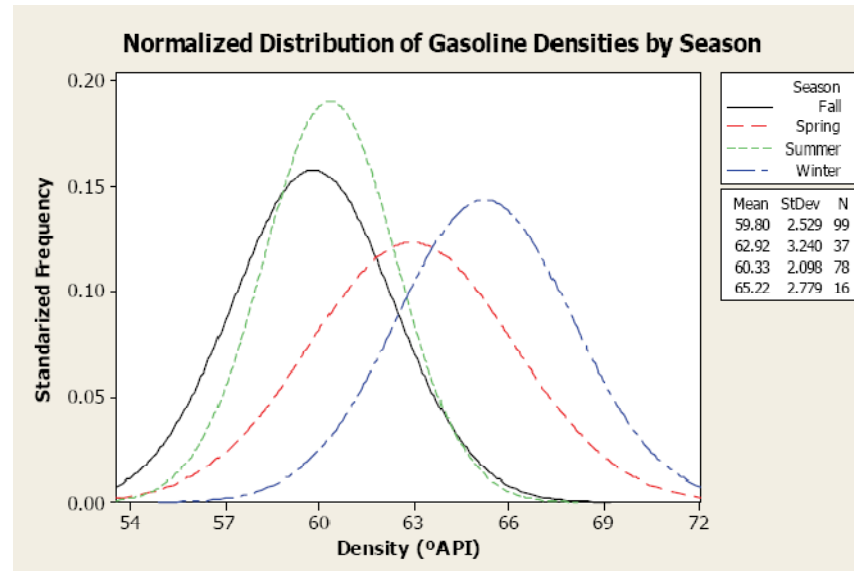


- In order to calculate how much gasoline expands or contracts relative to the 60°F reference temperature, one needs to know the density of the fuel
- Gasoline and diesel fuel densities vary based on their fuel properties



TC Benefits – Fuel Density

- But gasoline density also varies seasonally
- The CARB will analyze retail station samples to calculate density distributions
- Energy Commission will work with CARB to determine density variations for gasoline based on seasonality and ethanol content





TC Benefits – Outstanding Issues

- Should California assume an average density value for gasoline or use a different value for summer and winter seasons?
 - One average density value would be somewhat less accurate, but may decrease compliance costs for ATC
- Diesel fuel density values do not exhibit the same seasonal variation as gasoline
 - Therefore, a single average density value for diesel fuel may be sufficiently accurate
- Other outstanding ATC benefit issues?



TC Benefits – Discussion





Temperature Compensation Costs

- Business costs will be calculated using:
 - Fuel dispensers – make & model
 - ATC retrofit equipment costs @ expected lifetime
 - Installation labor costs & periodic maintenance
 - Incremental costs for ATC-capable new dispensers
- Analysis will be performed on a county-specific basis
- Gasoline and diesel fuel dispensers will be included in the assessment
 - Lack of data will likely preclude analysis for other types of transportation fuels, with possible exception of aviation gasoline



TC Costs – Data Base Development

- Data base is being developed that will be used to estimate equipment and labor costs for ATC retrofit kits by county
 - Dispenser manufacturer and model
 - Mechanical versus electronic
 - Quantity of fuel dispensers
 - Number of meters per dispenser
 - Number of gasoline grades/fuel types per dispenser





TC Costs – Data Base

- Data base has been populated with:
 - A list of retail establishments by physical location
 - Number of meters by physical location for most counties
- Make and model by physical location will be obtained for *most* regions by using information reported to air quality management districts as required for all gasoline dispensing facilities (GDFs)
- This approach will not work for all counties, so the Energy Commission will work with various County sealers to obtain the missing information through a survey to retail establishments – the extent of this work has yet to be determined



TC Costs – Installation

- The cost of labor to install the retrofit will also be included in the analysis
- Installation costs vary, but are usually greater for mechanical dispensers and will normally increase with the number of fuel types per dispenser
- Energy Commission will obtain estimated installation time by type of ATC retrofit kit from the manufacturers and installers
- An estimated range of hourly wages will be obtained for comparable retail dispenser technicians performing work in California



TC Costs – ATC-Ready Dispensers

- Energy Commission staff will also calculate the incremental costs to fuel dispenser manufacturers to produce ATC-capable dispensers
- It is assumed that the incremental costs to produce these types of dispensers would be less than the cost to retrofit existing ones, but how much less is not known
- This information would be relevant in determining future business costs for *new* retail establishments rather than retrofitting existing facilities



TC Costs – Hawaii Example

- *If a new reference temperature is determined to be one of the more cost-beneficial solutions*, the Energy Commission will want to calculate the incremental costs for modifications to the existing retail dispensers
- What type of modifications would be necessary?
 - Additional hardware?
 - Adjustment to existing meters?
- If so, at what estimated cost?

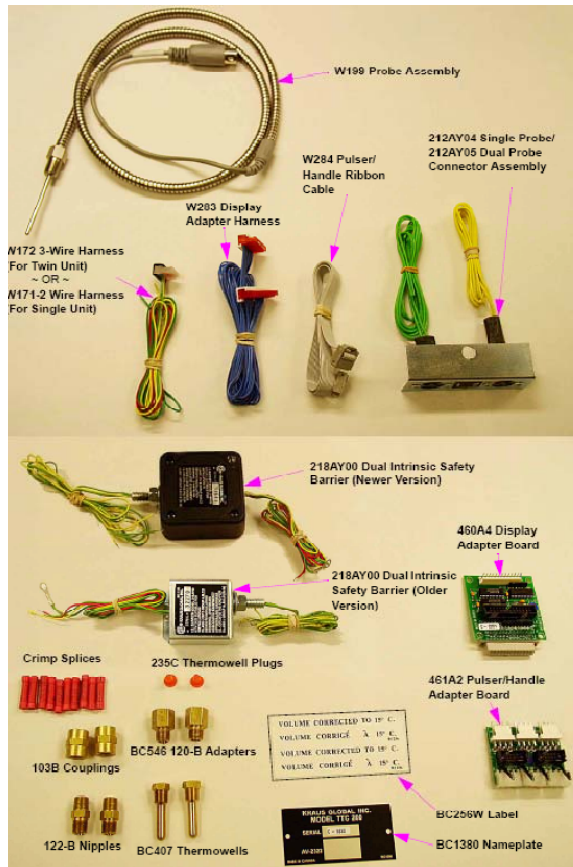


TC Costs – Outstanding Issues

- How may the costs of retail station operators change as a consequence of temperature compensation?
- Direct expenses incurred by retailers are assumed to pass through to consumers over the long-run
- This means that retailers may need to increase their street prices to compensate for the additional expense
- Therefore, should we assume that retail margins will be the same pre and post-ATC?
- If so, might retail station operators also adjust their street price to maintain similar margins if their revenue stream declines?



ATC Costs – Discussion





Agency Impacts

- State agencies potentially impacted
 - DMS
 - County sealers
 - Possibly others
 - SWRCB
 - BOE
 - FTB
- DMS impacts will include:
 - Regulation development
 - Calibration test procedure development
 - Equipment certification
 - Other activities?



Agency Impacts

- County sealer impacts will include:
 - Calibration equipment costs
 - Temperature measuring device
 - County sealer increased workload
 - Incremental time per retail dispenser
- How would county sealers recover their costs?
 - California Business & Professions Code (sec. 12240) limit total fees that can be collected from each retail establishment
 - These limits will be addressed in the study
- Analysis will be performed on a county-specific basis
- Are there other impacts that need to be addressed?



Lunch Break!



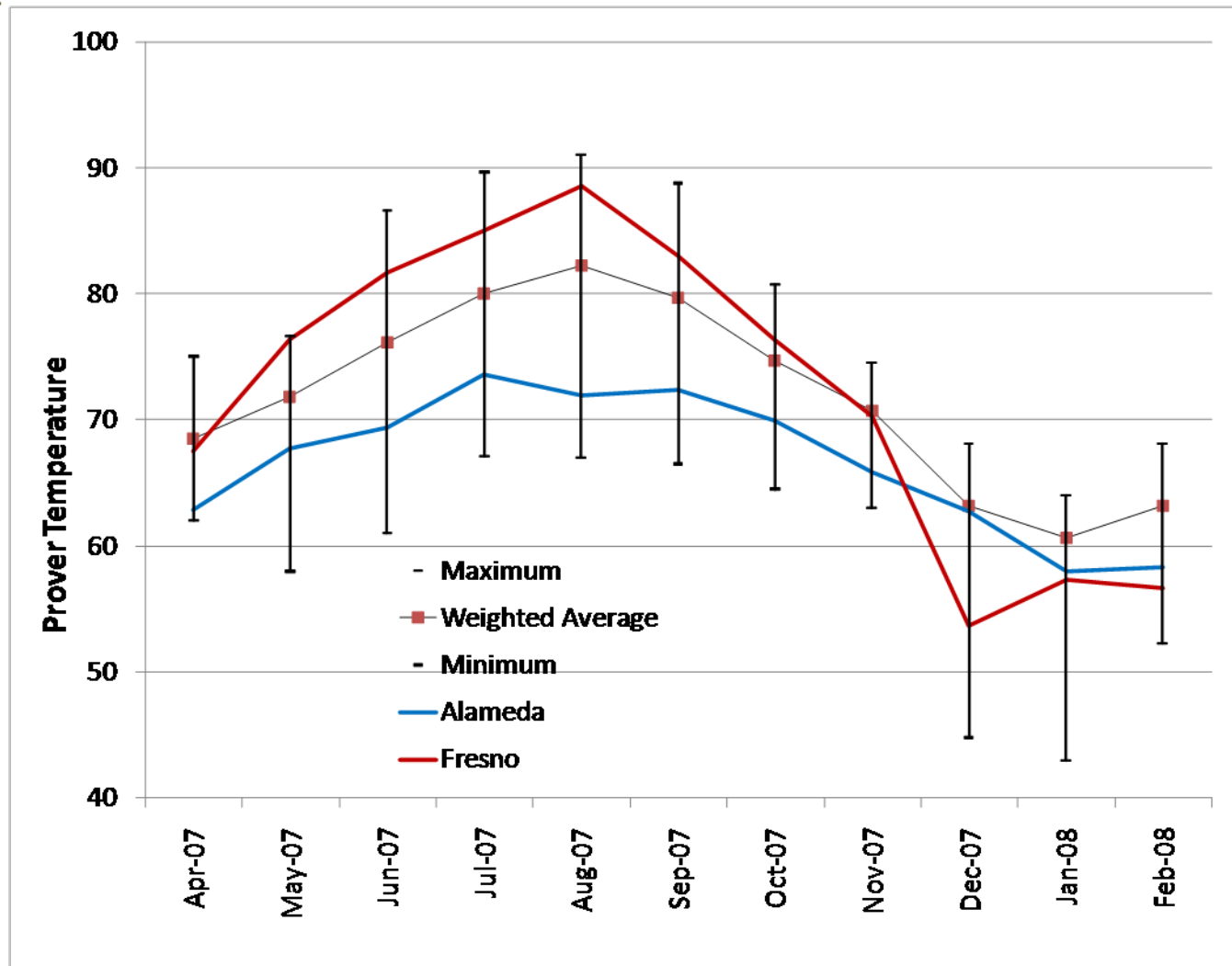


Cost-Benefit Calculation Examples

- CEC staff have created some county-specific examples to illustrate the benefit and cost methodologies
 - Alameda and Fresno counties
- These values are preliminary and will be refined prior to release of the draft staff report



Calculation Examples - Temperatures





Cost Estimate Calculation Methodology

$$[(\text{fuel dispenser}) \times (\text{equipment costs})] + [(\text{labor rate}) \times (\text{total hours of labor})]$$

Fuel dispensers = (estimate of ratio of 3 and 4-product dispensers)

Equipment costs = (average cost of all models of retrofit kits by 3 and 4-product dispenser types)

Labor rate = (assumed to range between \$50 and \$80 per hour)

Hours of labor per dispenser = (assumed to range between 2 and 4 hours)



Alameda County – Retrofit Cost Estimate

- Alameda county
 - 387 retail establishments
 - 2,844 three-product dispensers (est.)
 - \$1,996 average cost of three-product dispensers (est.)
 - 324 four-product dispensers (est.)
 - \$2,251 average cost of four-product dispensers (est.)
- Equipment costs - \$6.4 million
- Labor costs - \$317 thousand to \$1.0 million
- Combined cost estimate - \$6.7 to \$7.4 million



Fresno County – Retrofit Cost Estimate

- Fresno county
 - 367 retail establishments
 - 2,088 three-product dispensers (est.)
 - \$1,996 average cost of three-product dispensers (est.)
 - 429 four-product dispensers (est.)
 - \$2,251 average cost of four-product dispensers (est.)
- Equipment costs - \$5.1 million
- Labor costs - \$252 to \$805 thousand
- Combined cost estimate - \$5.4 to \$5.9 million



Additional Costs

- Retail establishments will also incur some additional costs associated with ATC retrofits
 - Slightly higher inspection fees
 - Potential maintenance costs prior to dispenser replacement
- CEC staff will work with DMS and county sealers to quantify increased inspection time and associated fee increase
 - May be less than \$200 per location per year
- CEC staff will seek assistance from manufacturers to identify percentage of retrofits requiring period maintenance and frequency of work based on experience in Canada



Monthly Benefits Calculation

(fuel volume) x (volume correction factor) x (fuel price)

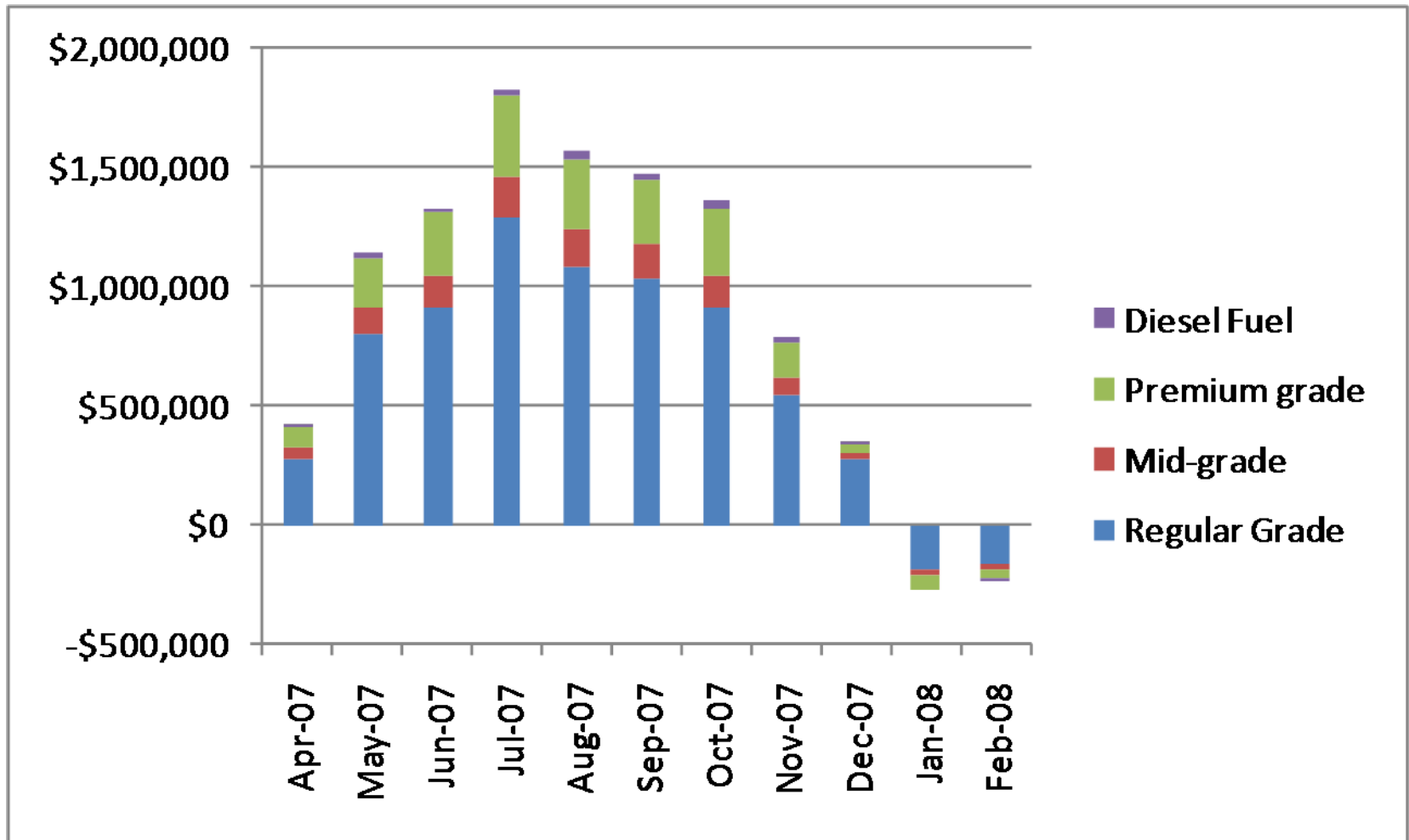
Fuel volume for gasoline = (ratio of gasoline by grade) x
(total gasoline consumption)

Vol. Correction Factor = function of fuel temperature &
density by fuel type

Fuel price = retail price by grade of gasoline and diesel fuel



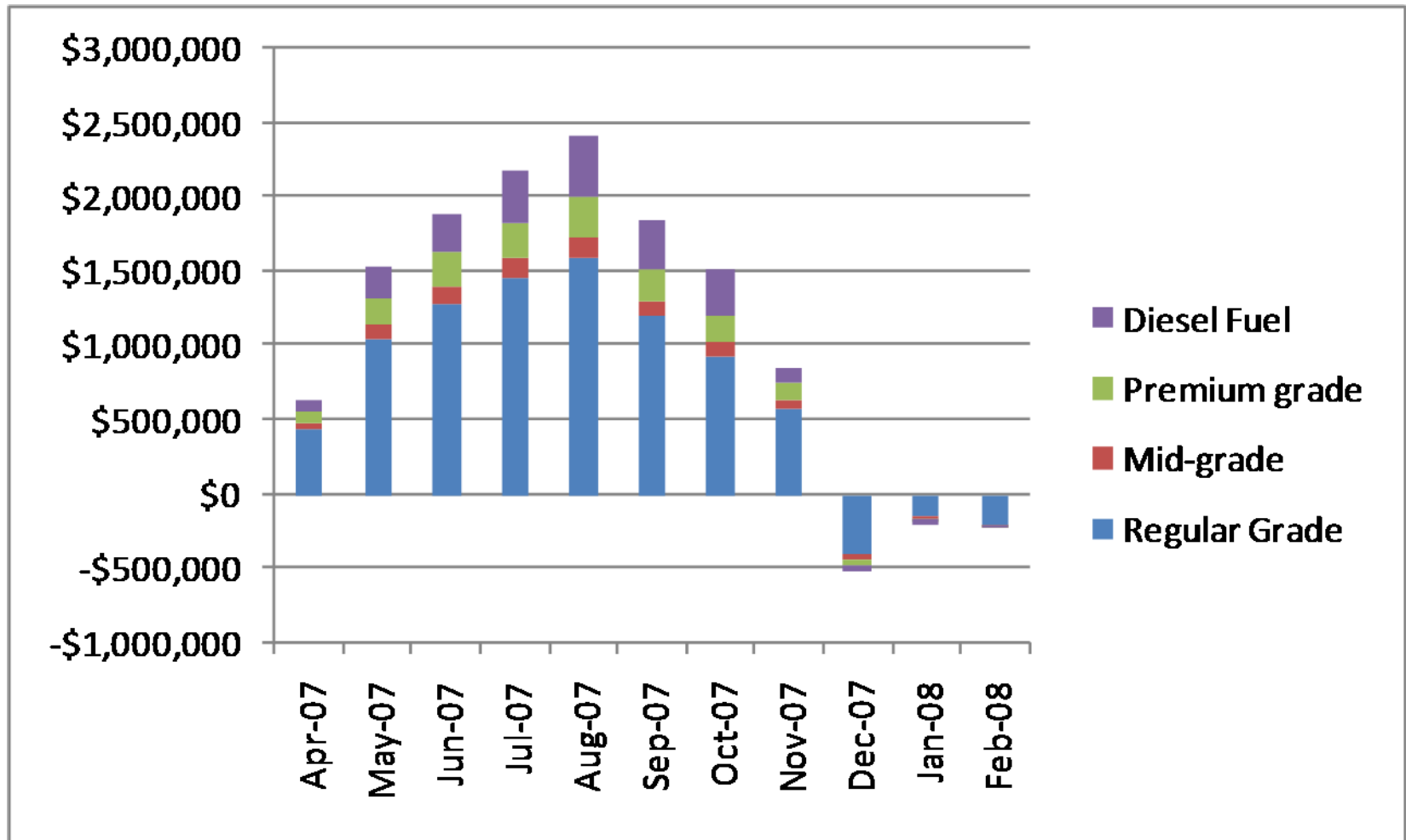
Alameda County – Estimated Benefits



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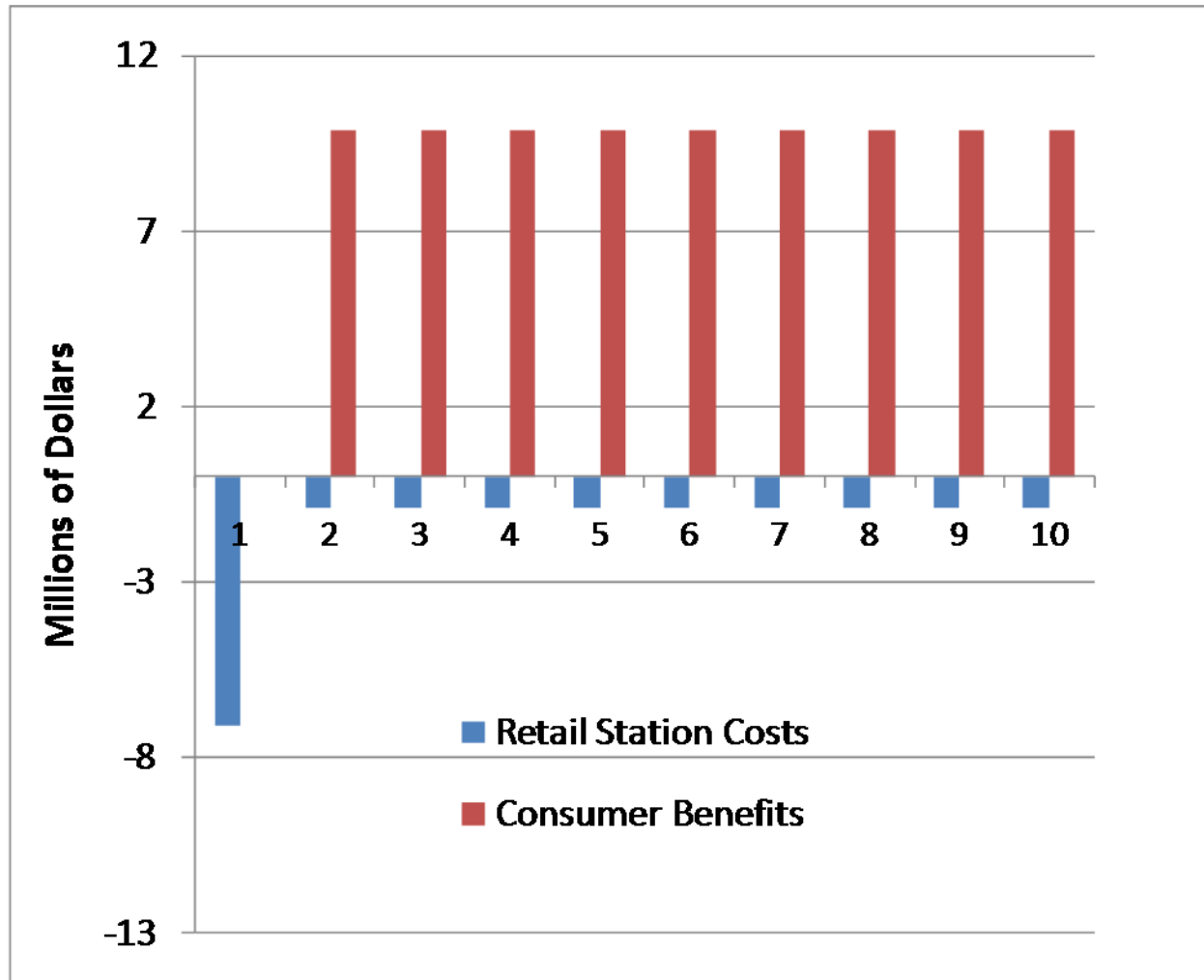


Fresno County – Estimated Benefits



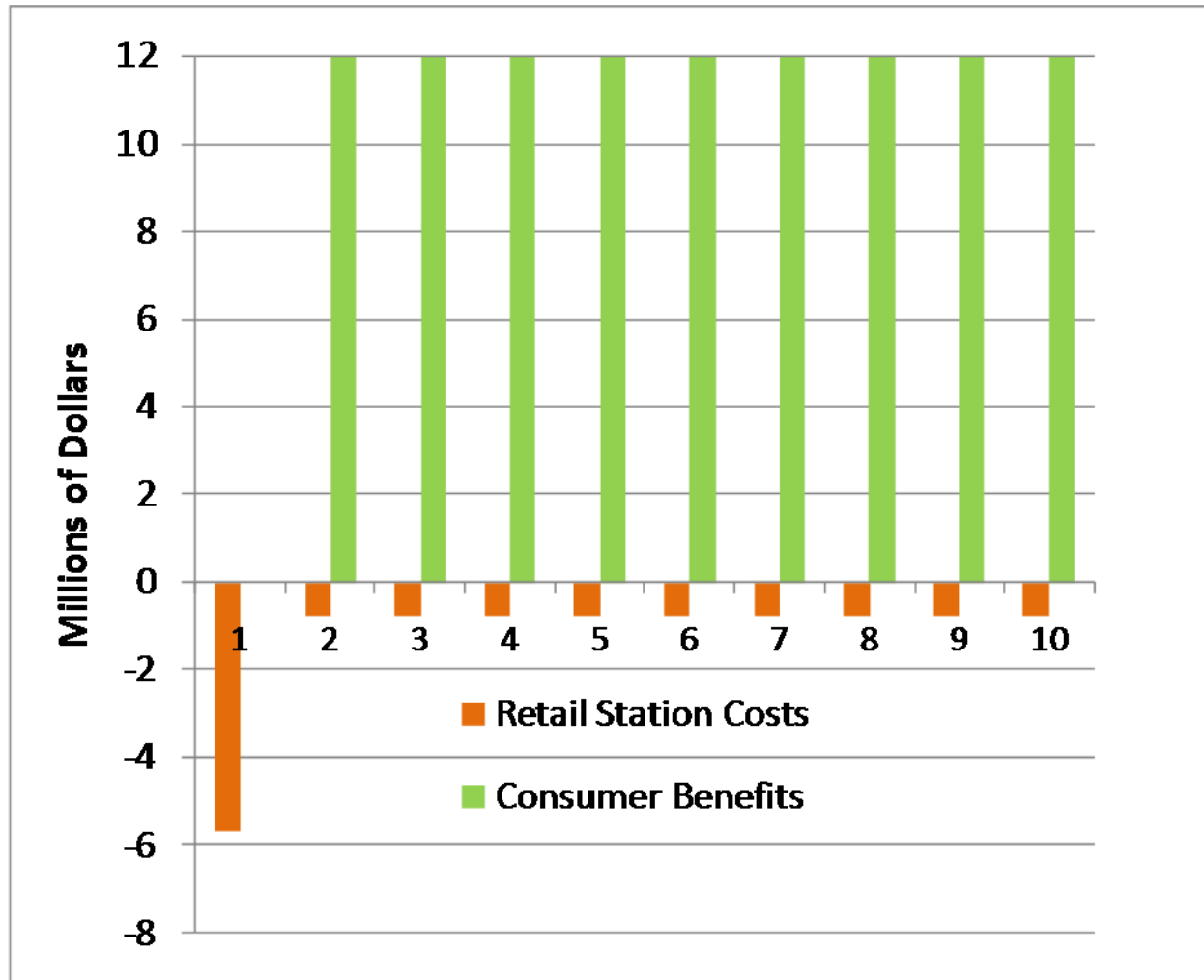


Alameda County – Costs & Benefits





Fresno County – Costs & Benefits





Potential Impact on Station Revenue

- If ATC retrofit were required in California, distribution of fuel will be altered to correct for variations in temperature
- Assuming the average annual fuel temperature is normally greater than the reference of 60 degrees F, one consequence of ATC would be a decreased quantity of retail fuel sales when converting from a gross to a net gallon form of measurement
- It is assumed that retailers will attempt to compensate for any net annual loss of fuel revenue by increasing prices on products they sell
 - Can include both fuel and non-fuel items

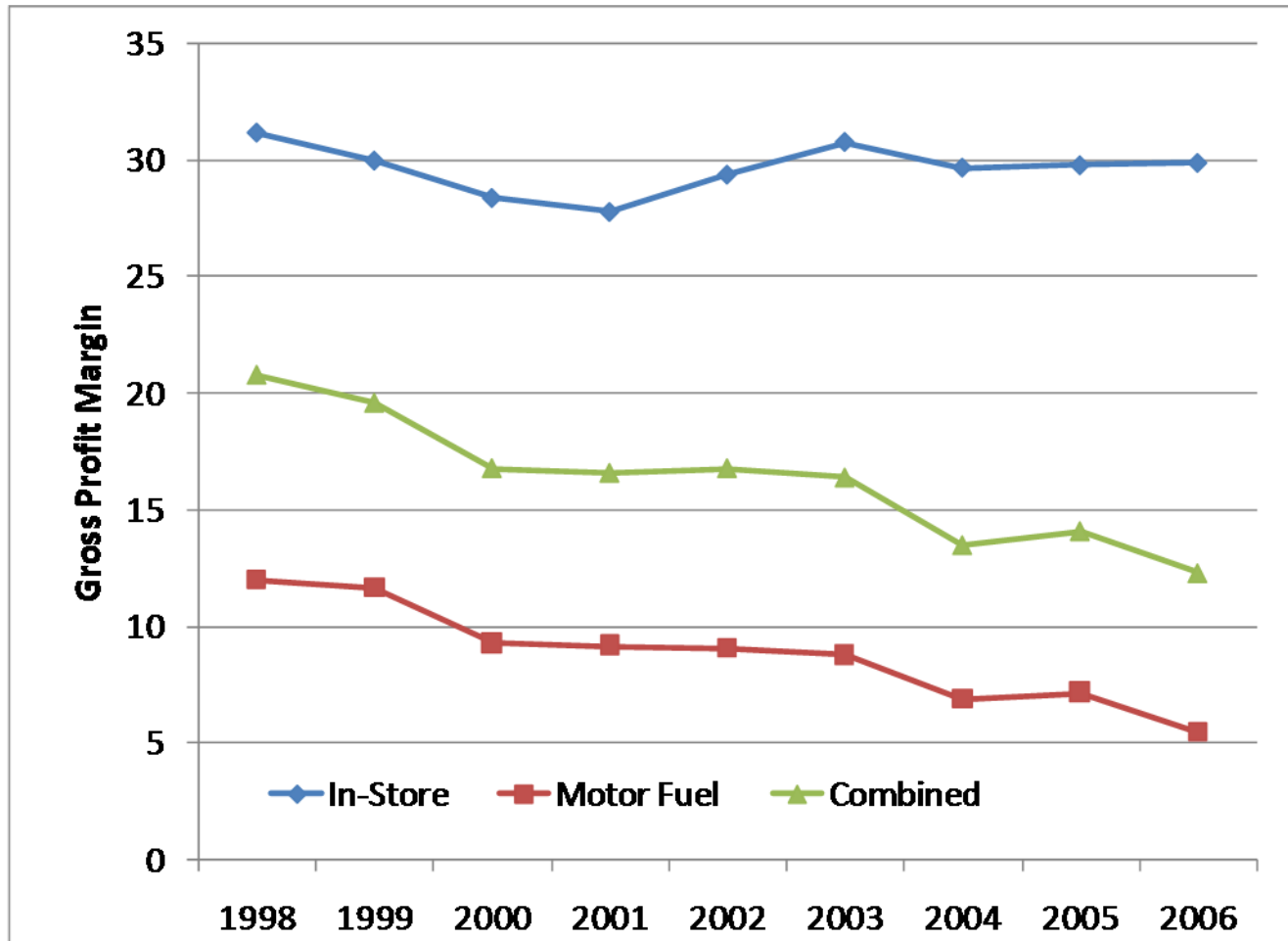


Retail Establishment Profitability

- Convenience stores now sell roughly 80 percent of all of the fuel consumed in the United States
- Trends of increased concentration of convenience stores and greater volumes of fuel dispensed per station are expected to continue
- Retail establishments are also assumed to continue the trend of profitable operation over the foreseeable future



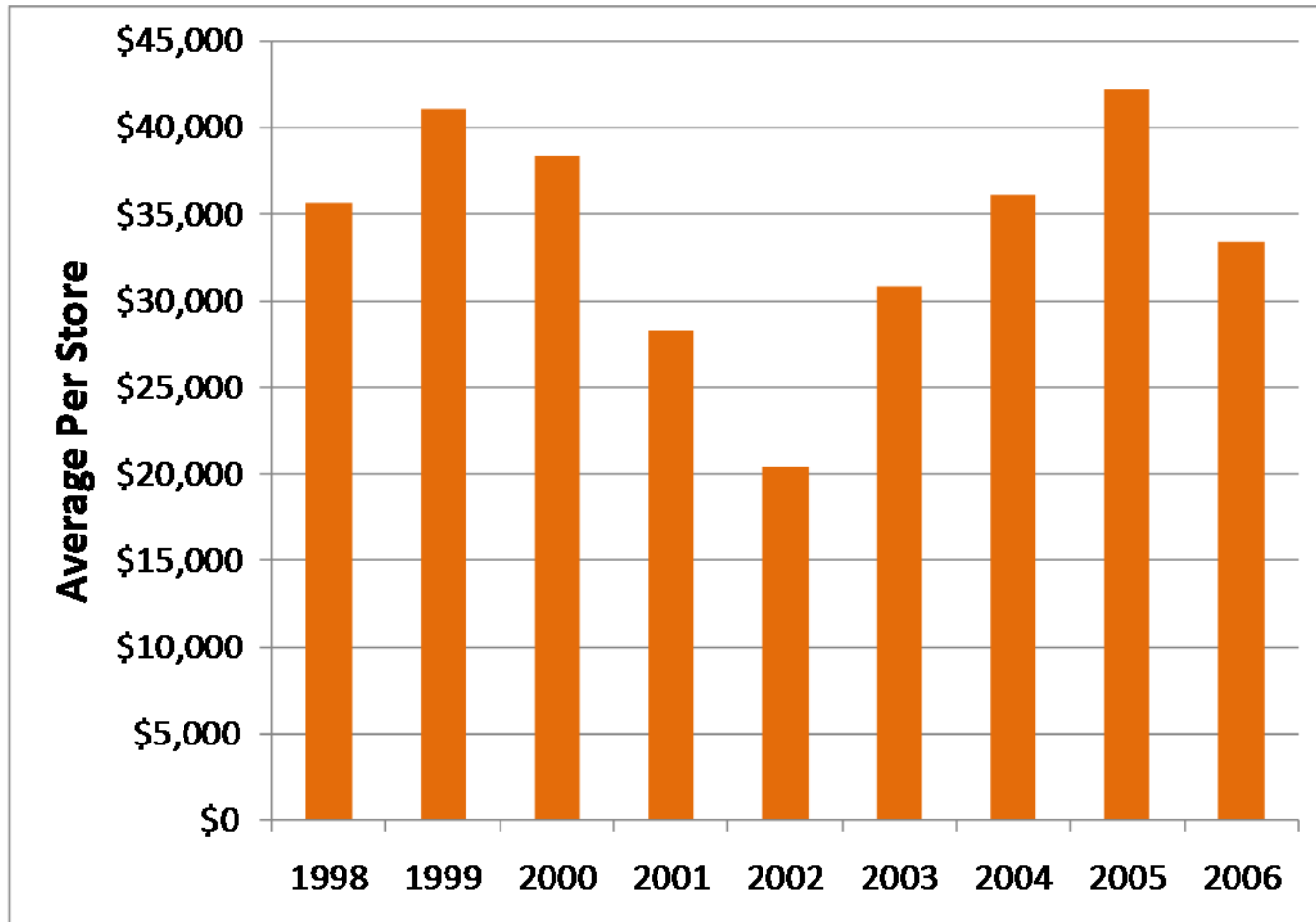
Convenience Store – Profit Margins



Source: NACS State of the Industry Survey Data



Convenience Store – Pretax Profits



Source: NACS State of the Industry Survey Data



Phase-in Schedule Issues

- *If ATC retrofit is determined to be one of the more cost-beneficial solutions*, the Energy Commission will want to identify the critical steps associated with implementing a statewide or regional ATC program
- How quickly could the new standards be put into place?
- Regulatory development
 - How long?
- Guidelines and procedures
 - Calibration enforcement
 - Equipment approval

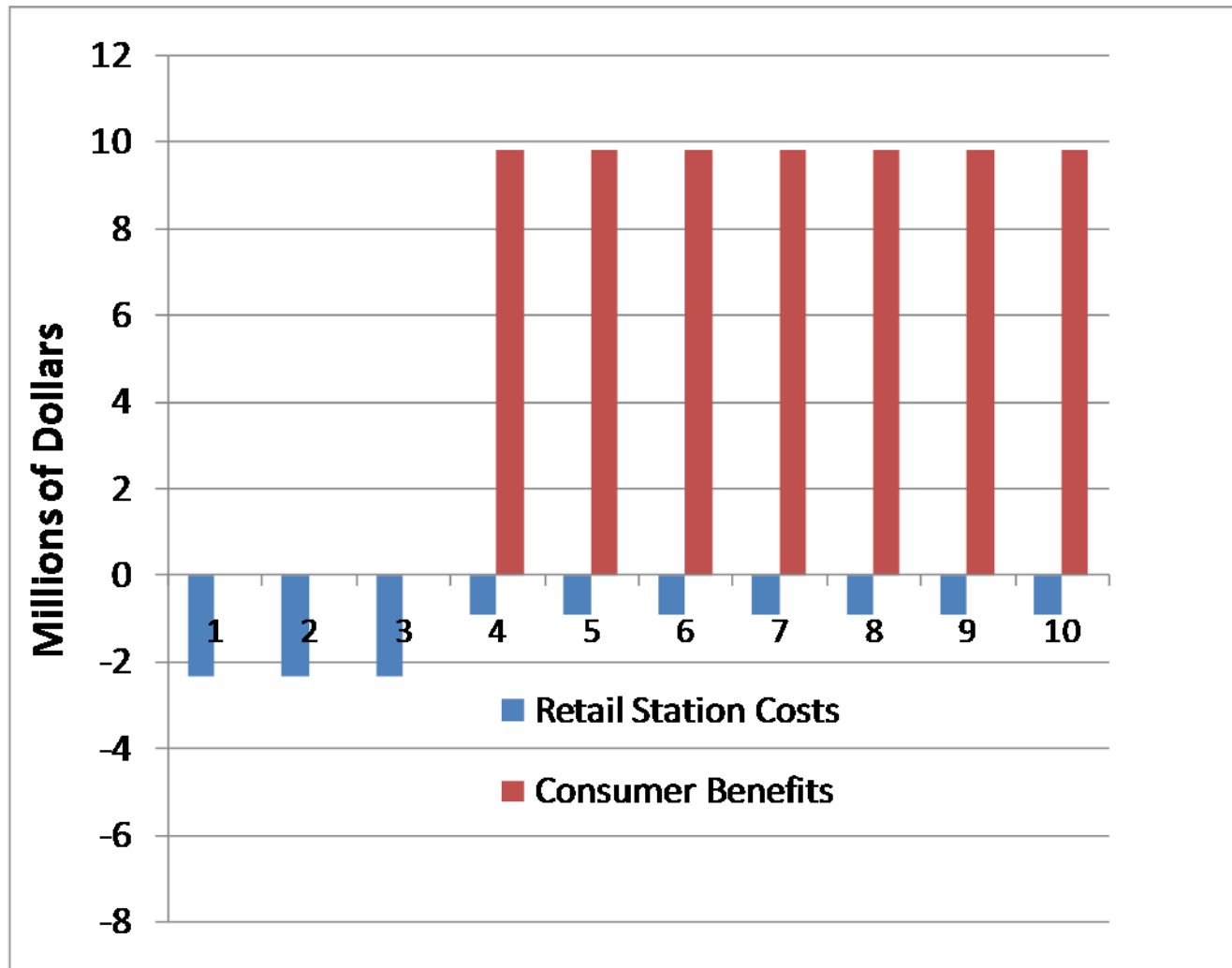


Phase-in Schedule Issues

- When should regulation be enforced?
 - Date certain
 - Phased in over time
- Date certain
 - Equitable for consumers
 - Could create constraints for material and specialized labor availability
 - Does the 1998 UST upgrade program provide any guidance?
- Phased in over time
 - Limited to new sites and station renovations?
 - Could decrease equipment costs and risk of labor constraint
 - But could place non-ATC sites at competitive disadvantage

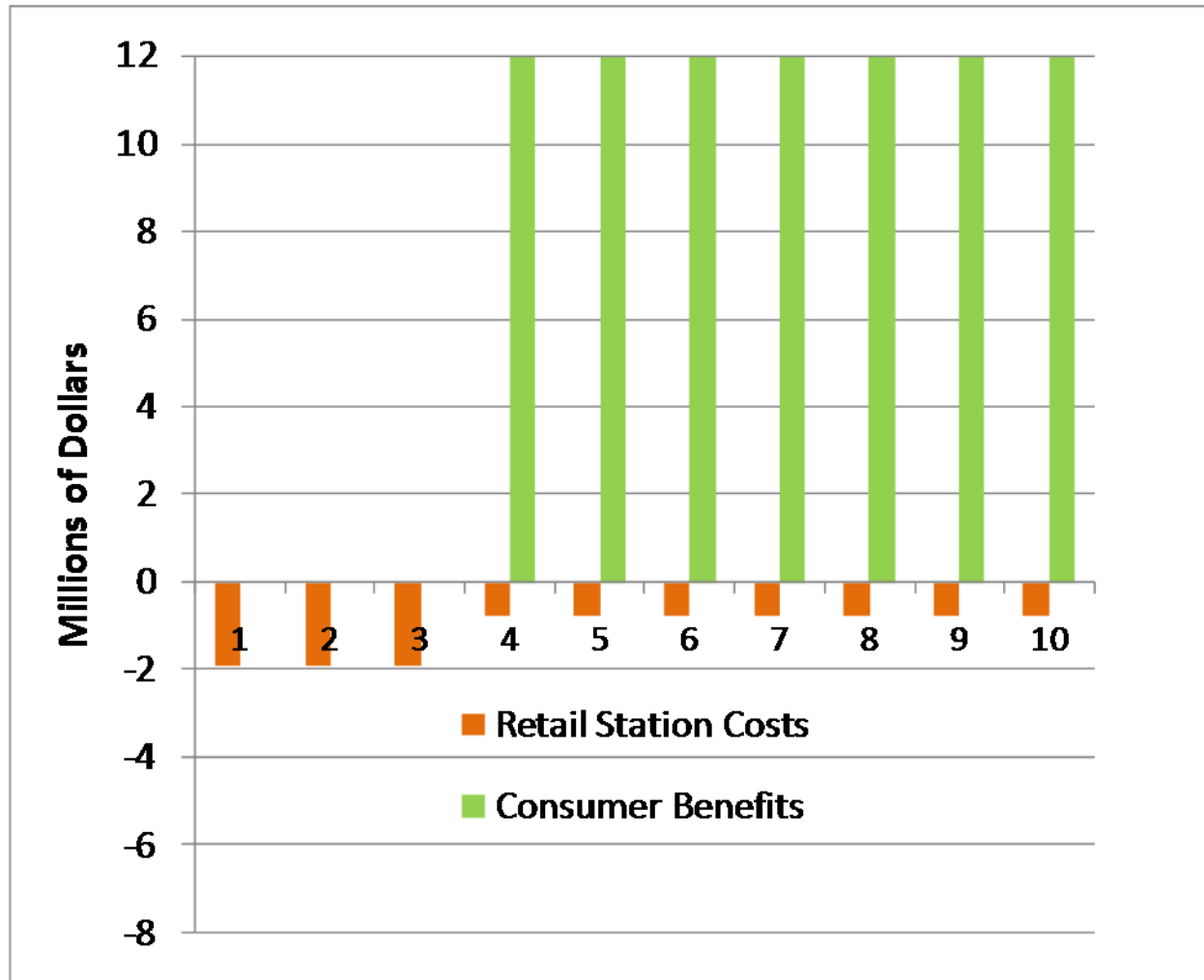


Alameda – Phased In Costs & Benefits





Fresno – Phased In Costs & Benefits





Phase-in Schedule – Discussion





Next Steps

- The Energy Commission will conduct the next public workshop for the Fuel Delivery Temperature Study on Wednesday, **September 17, 2008 at 9 AM**
- A notice for this meeting will be emailed during July
- An agenda for this meeting will be emailed during early-September
- Format of workshop will include the presentation of draft staff report findings & preliminary recommendations
- Targeting late-August for release of draft staff report



Additional Questions & Resources

